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TIRU : D/R ATTN: [REDACTED]  
Chief, Materials Division  
Acting Chief, Ferrous Metals Branch

9 July 1952

Comments on "Report on Alloy Metals"

In general, it is felt that the subject study is certainly worthy of further pursuance. It is agreed that a study of the denial of strategic metals cannot be handled on a single country basis but must be applied to the Soviet Bloc as a whole.

Since this branch does not cover zirconium and titanium, remarks will be confined to molybdenum, vanadium, cobalt and tungsten.

Specific comments follow:

Page 1: para II

(a) As to the shortage of vanadium, it is believed that the USSR has sufficient quantities of this metal for their own iron and steel industry but that a shortage exists throughout the rest of the Bloc.

(b) China is producing tungsten at a high rate. Practically all of the concentrate goes to the USSR.

(c) Fifth line from bottom reading "and/or a lack of processing facilities within the bloc, etc." Comment: There are no facilities for the production of ferro-tungsten in Czechoslovakia, and it has been reported that none are contemplated. There are, however, facilities for the production of fe-tungsten in the USSR.

Fourth line from bottom reading "since the Czechs recently tried (unsuccessfully) to have Chinese tungsten ore processed in Austria!" Comment: The Austrians recently reopened the question of processing Chinese tungsten ore for the Czechs, basing their appeal on the amount of pure tungsten they would retain for the processing, which it is claimed is essential to the Austrian steel industry.

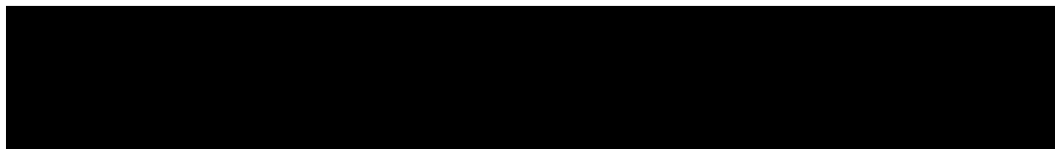
Page 2:

(a) Under uses it might be better to say that tungsten and molybdenum are used as alloying elements in high speed cutting, hot-working die and punch and high temperature resisting steels and in hard-facing materials for abrasive resistance. It is true that to a certain extent molybdenum and tungsten are interchangeable as alloying elements but not in all cases without a decrease in the quality of the steels.

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Ferro-Molybdenum: Czecho uses about 100 mts of pure molybdenum and about 80 tons of calcium-molybdenate annually. The calcium molybdenate is used in the Klement Gottwald plants in Vitkovice. Czecho attempted to obtain ferro-molybdenum in 1951 at any price, and although Sweden appears to be the only overt source of the material for Czecho., ferro-molybdenum is not to be included in the new Czech-Swedish treaty.

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Field Comment: Since there appears to be no shipments of pure molybdenum into the Eastern Bloc, the possibility exists that purchases of molybdenum may be made by Czecho in the West, with the molybdenum combined with molten iron or steel and shipped in this form. Luxembourg appears to be the most probable country from which such shipments could be made.

Ferro-Tungsten: Because Czecho is importing this raw material directly from Manchuria, it is making no current attempts to purchase ferro-tungsten from the West. Czecho non-ferrous metal rolling mills manufacture drawn tungsten filaments for the electric and radio industries.

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(2)

Source was documentary. Czecho Planned Imports of Raw Materials for 1950.

<u>Molybdenum</u>	From Great Britain	40 metric tons
<u>Fe-Molybdenum</u>	From US	112
	Great Britain	28
	Sweden	38
<u>Tungsten</u>	From Great Britain	45
<u>Fe-Tungsten</u>	From Yugoslavia	360
	USSR	20

Comment: Since Yugoslavia is included, it may be assumed that these plans for procurement were made prior to the Tito-Cominform break. From these items, however, some measure of Czech requirements can be made.

Page 4: para. IV - East-West Trade in Tungsten

The largest source of tungsten is China and most of the production reaches the Bloc in the form of ore and concentrate. Only an insignificant amount, if any, of the concentrate is converted into ferro-tungsten in China.

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In addition [REDACTED] included, the following is available, It is similar, but the date is later and the amount of concentrates is increased. 25X1X

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The Netherlands firm of N.V. Hollandsche Metallurgische Bedryven, Arnhem, is reported to have sold, or is in the process of selling, 700 metric tons of tungsten concentrates to Metalimex, Praha.

No attempt was made to include shipments of molybdenum and tungsten to other Satellite countries. The following, however, are additional sources and information on trade with Czechoslovakia.

1. [REDACTED] West German exports to Czechoslovakia, May-Sept. 1950:

Tungsten metal and alloys, tungsten compounds. \$16,200

2. [REDACTED] Documentary. During the first three months of 1949, Czecho received from the Soviet Zone of Germany:

Fe-tungsten-molybdenum-vanadium 100 metric tons

3. [REDACTED]

Czecho is receiving Korean tungsten through Polish ports.

4. [REDACTED] As of Mr-April, 1951.

During Mr.-April 1951, the Creditanstalt undertook the following financial transactions, bank guarantees and credits in connection with Austro-Satellite trade:

<u>Buyer</u>	<u>Austrian Exporter</u>	<u>Commodity</u>	<u>Am't in Clearing \$s</u>
Ferromet, Praha	Metallwerke Plansee GmbH, Tyrol	Tungsten wire	443
" "	" "	Tungsten bars for "Arkaton"	
		welding	443
Kovo, Praha	" "	Molybdenum wire	5,600
			109
			1,656
" "	" "	Tungsten contacts	6,051
			1,492
			443
		Molybdenum wire	20,000

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5. [REDACTED] Purchases of Tungsten by Metalinex.  
Businessman with extensive contacts in European circles.

Late in April, 1951, Metalinex made an arrangement with Treibacher Chemische Werke of Villach-Seebach, British Zone of Austria, under which the latter firm agreed to refine 150 metric tons of tungsten ore to be supplied by Metalinex and to deliver to Czechoslovakia the resultant purified ferro-tungsten. Ore is said to be low-grade Chinese ore.

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6. [REDACTED] Austro-Czech trade agreement signed in Praha 15/7/49, a prolongation of the 1948-49 agreement. Present agreement to run until 30/6/50.

Austria to send: Molybdenum and tungsten wire, sheet etc.

12,000,000 Cz. kcs.

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